

General purpose relative humidity sensors, featuring:

- Digital high, low or linear output versions available.
- Temperature range 0°C to +60°C.
- Output is ratiometric, precision independent from supply voltage.
- 3 wire connection (Vsupply, 0V, signal)
- Small size.
- Low power consumption, can be power supplied from our GIO series of general I/O equipment.
- Flexible mounting using either adhesive hatch-and-hook or fastener TM10019 (both bypacked)
- Configuration unit will be available later 2004.



TE11102 Temperature sensors are available in versions for either low or high relative humidity (RH) alarms or with linear output for humidity logging. They all use the same hardware, behaviour is programmed into the units in a configuration process. The units can be purchased pre-configured or configured by the end user (equipment for user configuration will be available within short). The following present pre-configured versions are defined:

Type number		Description
TE11102/1	LIN	Linear output 0% of Vsupply at 0%RH, 100% of Vsupply at 100%RH (i.e. 20%RH/Volt at Vsupply=5V)
TE11102/2	LOHI 80%	Normally low output, goes high when RH exceeds 80%

The configuration uses two registers for defining the behaviour of the unit:

Register	Description
mode	0=LIN. Linear mode 0...100%RH for 0..100% of Vsupply output voltage. 1=HILO. Output is high at low RH, goes low above threshold 2=LOHI. Output is low at low RH, goes high at high temp.
threshold	Threshold for high to low output transition when mode is 1 or 2. Value expressed as 0..255 for -25..+75°C (i.e. value=(T+25)*2.55).

Specifications

Dimensions:	50x35x20 mm
Operating Temp Range:	0°C ...+60°C
Connection:	5m 3wire 2.8mm overall diam. (3x0.04mm ²) grey: green = Vsupply white = output signal brown=0V
Power Supply Voltage:	3.0..5.5V DC
Current consumption:	typ 1.8mA, max 2.5mA
Tolerance	±5%RH within 30%...90% RH.